

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

UNITED STATES OF AMERICA,

Plaintiff,

vs.

No. CR 03-2365 JB

DANIEL SHADOWHAWK FOGHORN,

Defendant.

MEMORANDUM OPINION AND ORDER

THIS MATTER comes before the Court on the United States' Motion *in Limine* for Daubert Ruling Regarding the Admissibility and Scope of Defendants Proposed Expert Testimony, filed September 24, 2004 (Doc. 82). The primary issues are: (i) whether the Court should permit the Defendant's expert, Dr. Barbara McGuire, to testify about when in the course of the alleged crime the victim's death was caused; and (ii) whether the Court should preclude McGuire from testifying that she relied on hearsay testimony to reach her opinions. Consistent with the Court's ruling at the hearing on this motion and the reasons for that ruling given at the time of the hearing, the Court will grant the motion in part and deny the motion in part.

FACTUAL BACKGROUND

The United States alleges that Paul Williams and Trevor Nez were involved in a fight during

attack scene and inflicted additional severe trauma. Williams' further trauma included at least the following: (i) another half hour of beating by all three Defendants; (ii) being urinated on; (iii) being soaked by beer; and (iv) being pulled by the feet from the bed of a pickup and dropped without support as the victim's head struck the ground.

PROCEDURAL BACKGROUND

I. THE GOVERNMENT'S OBJECTIONS TO MCGUIRE'S METHODOLOGY AND CONCLUSIONS.

Pursuant to rule 16(c) of the Federal Rules of Criminal Procedure, Foghorn disclosed to the United States his proposed expert, the records generated in the course of the expert's work, and the substance of the expert's planned testimony. In July 2004, D. Penni Adrian, Foghorn's defense counsel, provided to the United States a report that McGuire had authored and her curriculum vitae. See Expert Witness Report (dated July 12, 2004); Curriculum Vitae of Barbara Joan McGuire, M.D., F.A.C.P, M.M.M. McGuire's proposed testimony involves her evaluation of injuries that Williams received before his death, as well as of his lactic acid levels and his body temperatures, the manner and time of his murder, Foghorn's contribution or lack thereof to the cause of death, and the relative contributions of the various assailants to Williams' death.

McGuire's report concludes:

- 1). It is my opinion to a reasonable medical probability that the death of Paul Williams was caused by the head injuries he sustained during the flight with Trevor Nez, compounded by the first two hours of environmental exposure, dehydration, hypothermia and profound lactic acidosis.

McGuire used to reach these conclusions.

The United States reviewed McGuire's report and determined that it arrived at conclusions which are outside McGuire's expertise and beyond the scope of recognized expert testimony based upon commonly known methods that medical experts use. The United States contends that McGuire's testimony is beyond that which the courts permit any experts to provide. The United States moves the Court to conduct a hearing before trial regarding the admissibility and scope of Foghorn's proposed expert testimony.

Specifically, the United States requests that the Court determine whether the proposed expert's testimony is admissible in whole or in part under the rule 702 of the Federal Rules of Evidence and whether the testimony meets the admissibility requirements of the Daubert line of cases. The United States further requests that, should the Court determine that McGuire is qualified to give opinions in this matter, the Court address the scope of McGuire's testimony before trial to save unnecessary and lengthy hearings during trial, out of the jury's presence. The United States contends that much of McGuire's report is based on hearsay that Foghorn may not introduce.

The United States requests, pursuant to Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999), that the Court exercise its "special gatekeeping obligation" and determine, after a review of her curriculum vitae, if McGuire's proposed testimony is admissible to any extent based on her qualifications, experience, and whether the methodology she used to form her opinions has "a reliable basis in knowledge and experience" in her discipline. *Id.* at 152. See *United States v. Charley*, 189

The Court held a hearing on this motion on October 14, 2004. At the hearing, the Defendant represented that he is not going to rely on hearsay; instead, he will call all witnesses to give live testimony on the out-of-court statements on which McGuire's report relies. See Transcript of Daubert Hearing at 24:15-23 (October 14, 2004)(hereinafter, "Transcript").

II. GOVERNMENT'S HEARSAY OBJECTIONS.

The United States alleges that McGuire has relied primarily on inadmissible hearsay or speculations about testimony which may or may not be given at trial. The United States also contends that the information that McGuire uses is not the information that experts in the field of forensic pathology uses. The United States contends that it is in the position of either attempting to introduce additional inadmissible hearsay or to call unreliable witnesses to impeach McGuire's basis and her methods in reaching her opinions.

Alternatively, the United States contends that, if the Court allows McGuire to testify about this hearsay, the Court should preclude Adrian from discussing the facts upon which McGuire relied to come to her opinion until those facts have been established in Court.

The United States contends that, if the Court allows McGuire to testify as an expert on the cause of death and if she relies largely on inadmissible hearsay for the basis of her opinions, then the Court should allow the United States to use other inadmissible hearsay during cross-examination to address the assumptions that McGuire makes. The United States argues that to allow otherwise would allow Foghorn to introduce the substance of selected inadmissible hearsay into the trial through

the jury; the United States represents that this inadmissible hearsay and speculation about potential testimony will serve to impeach McGuire's proposed opinions. The United States contends that, in essence, by proffering an expert, Foghorn hopes to get inadmissible or what he views as potentially exculpatory evidence into his case through McGuire's testimony.

At the hearing, the Defendant represented that he will call all witnesses to give live testimony on the out-of-court statements on which McGuire's report relies. McGuire will review all of the evidence offered at trial. If any of the statements offered in the live testimony contradict or alter the statements relied upon by McGuire in her report, she will revise her report accordingly. Therefore, under this representation, the report will not rely on otherwise inadmissible hearsay.

DAUBERT RESPONSIBILITIES

A party may introduce expert scientific testimony, subject to the admissibility requirements under rule 702:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

The Supreme Court of the United States, in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), has clarified the scope of rules governing the use of expert testimony and the

expert testimony meets the following standard:

The subject of an expert's testimony must be 'scientific . . . knowledge.' The adjective 'scientific' implies a grounding in the methods and procedures of science. Similarly, the word 'knowledge' connotes more than subjective belief or unsupported speculation. The term 'applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds.' Webster's Third New International Dictionary 1252 (1986). Of course, it would be unreasonable to conclude that the subject of scientific testimony must be 'known' to a certainty; arguably, there are no certainties in science. But, in order to qualify as 'scientific knowledge,' an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation--i.e., 'good grounds,' based on what is known. In short, the requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability.

Id. at 589-90 (citations and footnotes omitted). In addition, the trial judge must decide whether the proposed expert testimony is relevant in that it is helpful to the jury in resolving a factual dispute.

Id. at 591-92 ("Rule 702's 'helpfulness' standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.").

Pursuant to rule 703, a qualified expert may use, rely on, and testify about evidence that may be inadmissible. Specifically, rule 703 provides that an expert may use facts or data that are inadmissible in evidence so long as those facts or data are of a type that experts in the particular field reasonably rely upon.

ANALYSIS

The Court will grant the United States' request to conduct a hearing. This hearing will promote efficiency at trial.

probability, by the head injuries he sustained during the fight with Trevor Nez or when during the crime Williams was mortally injured; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.

Because the government does not challenge McGuire's qualifications as a medical expert, and in light of her considerable medical experience, the Court will permit McGuire to testify, in her opinion, to a reasonable medical probability, that Williams' death was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis.

I. MCGUIRE'S TESTIMONY REGARDING THE TIMING OF WILLIAMS' DEATH AND WHICH OF THE CO-DEFENDANTS CAUSED THE FATAL INJURIES USES FLAWED METHODOLOGY AND THE COURT WILL EXCLUDE THAT TESTIMONY UNDER DAUBERT.

The United States contends that McGuire's report contains conclusions that are beyond a medical doctor's expertise, especially one who is not qualified as a pathologist or is not experienced in the determination of cause of death. The United States argues that McGuire is not qualified to introduce opinions about the role Foghorn's actions, as distinguished from the other assailants' actions, played in causing the victim's death. Nor is she qualified to introduce opinions about the timing of Foghorn's actions as distinguished from the timing of the other assailants' actions, and how those actions caused Williams' death.

testimony.

During the Daubert hearing, the government stressed two main flaws in McGuire's methodology. First, McGuire bases her charts relating to lactic acidosis and body temperature, both of which depict a straight-line extrapolation, on insufficient data and unreliable methodology. Next, the Defendant fails to offer any evidence, in the form of scientific peer reviewed articles or other expert opinions, that verify the reliability of this methodology.

A. MCGUIRE BASES HER CONCLUSIONS ON INSUFFICIENT FACTS OR DATA.

In compiling the charts related to lactic acid and body temperature, McGuire makes numerous assumptions to generate the data points. Because it would be inhuman to subject a person to extreme circumstances and then measure how their body's physiology responds to such events, there is no available data on how lactic acid levels or body temperatures change in response to extreme conditions. McGuire, therefore, makes numerous key assumptions to create charts that project how Williams' body responded over the night of his assault. McGuire's charts have starting points based on assumptions of "average" lactic acid levels and body temperature. The ending points of the charts are Williams' body temperature and lactic acid levels taken by medical personal after discovering the body. McGuire assumes the average change per hour for both lactic acid levels and body temperature, and creates a straight line based on the assumed average hourly change.

For example, McGuire, in her testimony at the Daubert Motion hearing, explained how she

Q: My understanding of what you've said is that body temperature, based on all of the physical factors that Paul Williams had . . . right at the time of the fight, was his body temperature [] probably lower than normal?

A: Correct.

Q: Okay. Now, can you explain why you use a straight-line graph showing the decrease in body temperature rather than a graph that has some kinds of hills and valleys?

A: Well, part of it is based on my clinical experience. And it was unfortunately common in Shiprock, where people would be picked up along the road by emergency personnel, driving in, or a passerby seeing someone, calling an ambulance, and a critical factor was always how long were they out there. And it's -- as Ms. Burnett said, it would be cruel to subject a person to injury and put them out on the roadside and measure their temperature without assisting them, but in my experience and in lots of the emergency literature, that the measure of hypothermia is directly related to how long they've been exposed, what the ambient temperature is, what their degree of clothing is, and whether they're wet or not. And it is, you know, basically a time line.

The body, in my temperature graph -- as I said, I was generous. It was a flat line at 98 for -- into the first 30 minutes to an hour, and then I think -- and I think we can rely on reasonable experience of individuals, is that when you're outdoors, if we were outdoors in 45 degrees, we would have difficulty maintaining a 98.6. You've got to maintain a twofold temperature address, and people, they do try to compensate, but the body temperature does fall rapidly when a person is neurologically compromised, when they have the alcohol causing the vasodilation, and this decline may be even slower than normal. And, in fact, I think it's reasonable to assume that he dipped less than 86 or 87, because when, in my experience -- and I rode in many ambulances out at Shiprock, because we didn't have enough personnel -- but my experience is, at 5:00 in the morning, when the personnel are driving out there, they're running, they're warming the ambulance, they're running, they're not going to sit in 45-degree temperature. They've heated the ambulance to 80, 85. They run out, they pick up a person, they wrap them in blankets, and they put them in a heated ambulance.

So by the time he got to Shiprock, his -- which is 50 miles from -- about 50 miles

facility where they could actually measure his temperature.

Q: Okay.

A: So this is a -- If I were to redo this on my best clinical experience, I would have started his body temperature probably around 97, and I would have dropped it to the 83/84 range, with a rise between, you know, the lowest at about 5:00, 5:15 before he was picked up, and then a rise back to the 87 that was measured when he came in.

Q: Okay. And why did you not do that on the graph?

A: Without actual data points, I was trying to be very conservative and not, you know, push the envelope of plausibility.

Transcript at 46:20 - 49:10.

Because McGuire derives the starting data points, as well as all of the levels throughout the night, on unsupported and unverified data, such data is insufficient to support a reasonable or reliable conclusion.

B. MCGUIRE EMPLOYED UNREASONABLE AND UNRELIABLE METHODOLOGY.

After creating the data, McGuire then makes various conclusions based on this data, including that (i) the death of Williams was caused by the head injuries he sustained during the fight with Trevor Nez; (ii) when during the crime Williams was mortally injured; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.

The Defendant, however, fails to offer evidence, in the form of peer-reviewed articles or

methods.

C. EVEN ASSUMING MCGUIRE'S DATA AND METHODOLOGY WERE RELIABLE, MCGUIRE UNREASONABLY APPLIED THE METHODOLOGY TO THE FACTS.

Even assuming, *arguendo*, that there was sufficient data and that the methodology was reliable, the Defendant also fails to establish that McGuire applies the methodology to the particular facts and data in a reasonable and reliable way. The Defendant offers no scientific literature, peer-reviewed or otherwise, that shows the temperature and lactic acid levels would change at such consistent rates indicated in McGuire's charts. The Defendant also does not present any evidence that particular levels of lactic acid, or certain body temperatures, are unequivocally fatal. The wide analytical gap between the data and the conclusions leads this Court to conclude that the expert's conclusions are unreliable, and, therefore, inadmissible. See Dodge v. Cotter Corp., 328 F.3d 1212, 1222 (10th Cir. 2003); General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997) ("A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.").

Because of the lack of scientific support for these conclusions, the Court is left with what constitutes McGuire's subjective belief and supported speculation as to the events leading up to Williams' death. The Court will exclude this testimony under Daubert.

D. DEFENDANT DID NOT OFFER EVIDENCE THAT OTHER DOCTORS USE THE METHODOLOGY MCGUIRE USED.

In her testimony, McGuire admits that she is unaware of any other medical professional that

scientific literature to support the reliability of such methodology, explains why McGuire is unable to offer a rate of error for her conclusions. See Transcript at 94:11-20. A rate of error is one of the factors considered in determining the reliability of expert testimony. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. at 2786; Truck Ins. Exchange v. MagneTek, Inc., 360 F.3d 1206, 1210 (10th Cir. 2004)(explaining that, under Daubert, one of the factors considered to determine the reliability of expert testimony is “whether the methodology used has standards controlling its use and known rate of error”). Because there is no evidence in the record of the methodology’s rate of error, and no evidence that other medical professionals use the same methodology, the Court concludes that the methodology, and the conclusions derived from it, are unreliable. The Court, therefore, will exclude this part of her testimony under Daubert.

II. MCGUIRE IS QUALIFIED TO TESTIFY REGARDING THE CAUSE OF WILLIAMS’ DEATH.

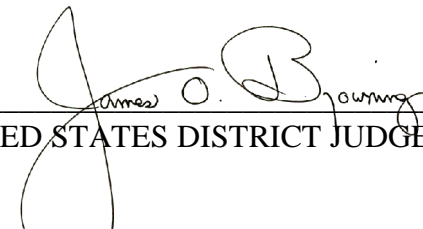
The United States does not challenge that McGuire is a medical doctor and thereby may testify regarding relevant medical issues within her expertise. She may testify that, in her opinion, to a reasonable medical probability, the death of Paul Williams was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis. The Court prohibits McGuire from testifying as to all other conclusions.

III. MCGUIRE WILL NOT DISCLOSE OTHER INADMISSIBLE FACTS OR DATA IN DIRECT OR RE-DIRECT EXAMINATION.

The United States contends that the Court should thoroughly review these issues to prevent

The Court agrees that it should be vigilant not to allow McGuire to be a conduit for inadmissible hearsay. But because the Defendant and McGuire represent that McGuire will not rely on hearsay, and instead will wait until all testimony is in before McGuire testifies, the hearsay problem should disappear or be alleviated. There is a possibility not all witnesses that made out-of-court statements will be available for cross-examination. Accordingly, the Court will deal with any hearsay objections as they arise at trial.

IT IS ORDERED that the United States' Motion *in Limine* for Daubert Ruling on the Admissibility of Expert Testimony is granted in part and denied in part. McGuire may testify, in her opinion, to a reasonable medical probability, that Paul Williams' death was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis. McGuire may not testify that, in her expert opinion, the death of Williams was caused, to a reasonable medical probability, by the head injuries he sustained during the fight with Trevor Nez or when during the crime Williams was mortally injured. McGuire also may not testify that it is her opinion, to a reasonable medical certainty that, when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.


UNITED STATES DISTRICT JUDGE

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FACTUAL BACKGROUND

The United States alleges that Paul Williams and Trevor Nez were involved in a fight during

attack scene and inflicted additional severe trauma. Williams' further trauma included at least the following: (i) another half hour of beating by all three Defendants; (ii) being urinated on; (iii) being soaked by beer; and (iv) being pulled by the feet from the bed of a pickup and dropped without support as the victim's head struck the ground.

PROCEDURAL BACKGROUND

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McGuire's report concludes:

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Specifically, the United States requests that the Court determine whether the proposed expert's testimony is admissible in whole or in part under the rule 702 of the Federal Rules of Evidence and whether the testimony meets the admissibility requirements of the Daubert line of cases. The United States further requests that, should the Court determine that McGuire is qualified to give opinions in this matter, the Court address the scope of McGuire's testimony before trial to save unnecessary and lengthy hearings during trial, out of the jury's presence. The United States contends that much of McGuire's report is based on hearsay that Foghorn may not introduce.

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A. MCGUIRE BASES HER CONCLUSIONS ON INSUFFICIENT FACTS OR DATA.

In compiling the charts related to lactic acid and body temperature, McGuire makes numerous assumptions to generate the data points. Because it would be inhuman to subject a person to extreme circumstances and then measure how their body's physiology responds to such events, there is no available data on how lactic acid levels or body temperatures change in response to extreme conditions. McGuire, therefore, makes numerous key assumptions to create charts that project how Williams' body responded over the night of his assault. McGuire's charts have starting points based on assumptions of "average" lactic acid levels and body temperature. The ending points of the charts are Williams' body temperature and lactic acid levels taken by medical personal after discovering the body. McGuire assumes the average change per hour for both lactic acid levels and body temperature, and creates a straight line based on the assumed average hourly change.

For example, McGuire, in her testimony at the Daubert Motion hearing, explained how she

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So by the time he got to Shiprock, his -- which is 50 miles from -- about 50 miles

facility where they could actually measure his temperature.

Q: Okay.

A: So this is a -- If I were to redo this on my best clinical experience, I would have started his body temperature probably around 97, and I would have dropped it to the 83/84 range, with a rise between, you know, the lowest at about 5:00, 5:15 before he was picked up, and then a rise back to the 87 that was measured when he came in.

Q: Okay. And why did you not do that on the graph?

A: Without actual data points, I was trying to be very conservative and not, you know, push the envelope of plausibility.

Transcript at 46:20 - 49:10.

Because McGuire derives the starting data points, as well as all of the levels throughout the night, on unsupported and unverified data, such data is insufficient to support a reasonable or reliable conclusion.

B. MCGUIRE EMPLOYED UNREASONABLE AND UNRELIABLE METHODOLOGY.

After creating the data, McGuire then makes various conclusions based on this data, including that (i) the death of Williams was caused by the head injuries he sustained during the fight with Trevor Nez; (ii) when during the crime Williams was mortally injured; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.

The Defendant, however, fails to offer evidence, in the form of peer-reviewed articles or

methods.

C. EVEN ASSUMING MCGUIRE’S DATA AND METHODOLOGY WERE RELIABLE, MCGUIRE UNREASONABLY APPLIED THE METHODOLOGY TO THE FACTS.

Even assuming, *arguendo*, that there was sufficient data and that the methodology was reliable, the Defendant also fails to establish that McGuire applies the methodology to the particular facts and data in a reasonable and reliable way. The Defendant offers no scientific literature, peer-reviewed or otherwise, that shows the temperature and lactic acid levels would change at such consistent rates indicated in McGuire’s charts. The Defendant also does not present any evidence that particular levels of lactic acid, or certain body temperatures, are unequivocally fatal. The wide analytical gap between the data and the conclusions leads this Court to conclude that the expert’s conclusions are unreliable, and, therefore, inadmissible. See Dodge v. Cotter Corp., 328 F.3d 1212, 1222 (10th Cir. 2003); General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997)(“A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.”).

Because of the lack of scientific support for these conclusions, the Court is left with what constitutes McGuire’s subjective belief and supported speculation as to the events leading up to Williams’ death. The Court will exclude this testimony under Daubert.

D. DEFENDANT DID NOT OFFER EVIDENCE THAT OTHER DOCTORS USE THE METHODOLOGY MCGUIRE USED.

In her testimony, McGuire admits that she is unaware of any other medical professional that

scientific literature to support the reliability of such methodology, explains why McGuire is unable to offer a rate of error for her conclusions. See Transcript at 94:11-20. A rate of error is one of the factors considered in determining the reliability of expert testimony. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. at 2786; Truck Ins. Exchange v. MagneTek, Inc., 360 F.3d 1206, 1210 (10th Cir. 2004)(explaining that, under Daubert, one of the factors considered to determine the reliability of expert testimony is “whether the methodology used has standards controlling its use and known rate of error”). Because there is no evidence in the record of the methodology’s rate of error, and no evidence that other medical professionals use the same methodology, the Court concludes that the methodology, and the conclusions derived from it, are unreliable. The Court, therefore, will exclude this part of her testimony under Daubert.

II. MCGUIRE IS QUALIFIED TO TESTIFY REGARDING THE CAUSE OF WILLIAMS’ DEATH.

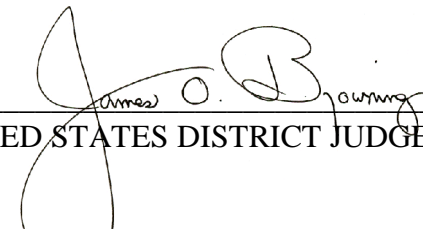
The United States does not challenge that McGuire is a medical doctor and thereby may testify regarding relevant medical issues within her expertise. She may testify that, in her opinion, to a reasonable medical probability, the death of Paul Williams was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis. The Court prohibits McGuire from testifying as to all other conclusions.

III. MCGUIRE WILL NOT DISCLOSE OTHER INADMISSIBLE FACTS OR DATA IN DIRECT OR RE-DIRECT EXAMINATION.

The United States contends that the Court should thoroughly review these issues to prevent

The Court agrees that it should be vigilant not to allow McGuire to be a conduit for inadmissible hearsay. But because the Defendant and McGuire represent that McGuire will not rely on hearsay, and instead will wait until all testimony is in before McGuire testifies, the hearsay problem should disappear or be alleviated. There is a possibility not all witnesses that made out-of-court statements will be available for cross-examination. Accordingly, the Court will deal with any hearsay objections as they arise at trial.

IT IS ORDERED that the United States' Motion *in Limine* for Daubert Ruling on the Admissibility of Expert Testimony is granted in part and denied in part. McGuire may testify, in her opinion, to a reasonable medical probability, that Paul Williams' death was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis. McGuire may not testify that, in her expert opinion, the death of Williams was caused, to a reasonable medical probability, by the head injuries he sustained during the fight with Trevor Nez or when during the crime Williams was mortally injured. McGuire also may not testify that it is her opinion, to a reasonable medical certainty that, when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.


UNITED STATES DISTRICT JUDGE

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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO**

UNITED STATES OF AMERICA,

Plaintiff,

vs.

No. CR 03-2365 JB

DANIEL SHADOWHAWK FOGHORN,

Defendant.

MEMORANDUM OPINION AND ORDER

THIS MATTER comes before the Court on the United States' Motion *in Limine* for Daubert Ruling Regarding the Admissibility and Scope of Defendants Proposed Expert Testimony, filed September 24, 2004 (Doc. 82). The primary issues are: (i) whether the Court should permit the Defendant's expert, Dr. Barbara McGuire, to testify about when in the course of the alleged crime the victim's death was caused; and (ii) whether the Court should preclude McGuire from testifying that she relied on hearsay testimony to reach her opinions. Consistent with the Court's ruling at the hearing on this motion and the reasons for that ruling given at the time of the hearing, the Court will grant the motion in part and deny the motion in part.

FACTUAL BACKGROUND

The United States alleges that Paul Williams and Trevor Nez were involved in a fight during

attack scene and inflicted additional severe trauma. Williams' further trauma included at least the following: (i) another half hour of beating by all three Defendants; (ii) being urinated on; (iii) being soaked by beer; and (iv) being pulled by the feet from the bed of a pickup and dropped without support as the victim's head struck the ground.

PROCEDURAL BACKGROUND

I. THE GOVERNMENT'S OBJECTIONS TO MCGUIRE'S METHODOLOGY AND CONCLUSIONS.

Pursuant to rule 16(c) of the Federal Rules of Criminal Procedure, Foghorn disclosed to the United States his proposed expert, the records generated in the course of the expert's work, and the substance of the expert's planned testimony. In July 2004, D. Penni Adrian, Foghorn's defense counsel, provided to the United States a report that McGuire had authored and her curriculum vitae. See Expert Witness Report (dated July 12, 2004); Curriculum Vitae of Barbara Joan McGuire, M.D., F.A.C.P, M.M.M. McGuire's proposed testimony involves her evaluation of injuries that Williams received before his death, as well as of his lactic acid levels and his body temperatures, the manner and time of his murder, Foghorn's contribution or lack thereof to the cause of death, and the relative contributions of the various assailants to Williams' death.

McGuire's report concludes:

1). It is my opinion to a reasonable medical probability that the death of Paul Williams was caused by the head injuries he sustained during the flight with Trevor Nez, compounded by the first two hours of environmental exposure, dehydration, hypothermia and profound lactic acidosis.

McGuire used to reach these conclusions.

The United States reviewed McGuire's report and determined that it arrived at conclusions which are outside McGuire's expertise and beyond the scope of recognized expert testimony based upon commonly known methods that medical experts use. The United States contends that McGuire's testimony is beyond that which the courts permit any experts to provide. The United States moves the Court to conduct a hearing before trial regarding the admissibility and scope of Foghorn's proposed expert testimony.

Specifically, the United States requests that the Court determine whether the proposed expert's testimony is admissible in whole or in part under the rule 702 of the Federal Rules of Evidence and whether the testimony meets the admissibility requirements of the Daubert line of cases. The United States further requests that, should the Court determine that McGuire is qualified to give opinions in this matter, the Court address the scope of McGuire's testimony before trial to save unnecessary and lengthy hearings during trial, out of the jury's presence. The United States contends that much of McGuire's report is based on hearsay that Foghorn may not introduce.

The United States requests, pursuant to Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999), that the Court exercise its "special gatekeeping obligation" and determine, after a review of her curriculum vitae, if McGuire's proposed testimony is admissible to any extent based on her qualifications, experience, and whether the methodology she used to form her opinions has "a reliable basis in knowledge and experience" in her discipline. *Id.* at 152. See *United States v. Charley*, 189

The Court held a hearing on this motion on October 14, 2004. At the hearing, the Defendant represented that he is not going to rely on hearsay; instead, he will call all witnesses to give live testimony on the out-of-court statements on which McGuire's report relies. See Transcript of Daubert Hearing at 24:15-23 (October 14, 2004)(hereinafter, "Transcript").

II. GOVERNMENT'S HEARSAY OBJECTIONS.

The United States alleges that McGuire has relied primarily on inadmissible hearsay or speculations about testimony which may or may not be given at trial. The United States also contends that the information that McGuire uses is not the information that experts in the field of forensic pathology uses. The United States contends that it is in the position of either attempting to introduce additional inadmissible hearsay or to call unreliable witnesses to impeach McGuire's basis and her methods in reaching her opinions.

Alternatively, the United States contends that, if the Court allows McGuire to testify about this hearsay, the Court should preclude Adrian from discussing the facts upon which McGuire relied to come to her opinion until those facts have been established in Court.

The United States contends that, if the Court allows McGuire to testify as an expert on the cause of death and if she relies largely on inadmissible hearsay for the basis of her opinions, then the Court should allow the United States to use other inadmissible hearsay during cross-examination to address the assumptions that McGuire makes. The United States argues that to allow otherwise would allow Foghorn to introduce the substance of selected inadmissible hearsay into the trial through

the jury; the United States represents that this inadmissible hearsay and speculation about potential testimony will serve to impeach McGuire's proposed opinions. The United States contends that, in essence, by proffering an expert, Foghorn hopes to get inadmissible or what he views as potentially exculpatory evidence into his case through McGuire's testimony.

At the hearing, the Defendant represented that he will call all witnesses to give live testimony on the out-of-court statements on which McGuire's report relies. McGuire will review all of the evidence offered at trial. If any of the statements offered in the live testimony contradict or alter the statements relied upon by McGuire in her report, she will revise her report accordingly. Therefore, under this representation, the report will not rely on otherwise inadmissible hearsay.

DAUBERT RESPONSIBILITIES

A party may introduce expert scientific testimony, subject to the admissibility requirements under rule 702:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

The Supreme Court of the United States, in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), has clarified the scope of rules governing the use of expert testimony and the

expert testimony meets the following standard:

The subject of an expert's testimony must be 'scientific . . . knowledge.' The adjective 'scientific' implies a grounding in the methods and procedures of science. Similarly, the word 'knowledge' connotes more than subjective belief or unsupported speculation. The term 'applies to any body of known facts or to any body of ideas inferred from such facts or accepted as truths on good grounds.' Webster's Third New International Dictionary 1252 (1986). Of course, it would be unreasonable to conclude that the subject of scientific testimony must be 'known' to a certainty; arguably, there are no certainties in science. But, in order to qualify as 'scientific knowledge,' an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation--i.e., 'good grounds,' based on what is known. In short, the requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability.

Id. at 589-90 (citations and footnotes omitted). In addition, the trial judge must decide whether the proposed expert testimony is relevant in that it is helpful to the jury in resolving a factual dispute.

Id. at 591-92 ("Rule 702's 'helpfulness' standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.").

Pursuant to rule 703, a qualified expert may use, rely on, and testify about evidence that may be inadmissible. Specifically, rule 703 provides that an expert may use facts or data that are inadmissible in evidence so long as those facts or data are of a type that experts in the particular field reasonably rely upon.

ANALYSIS

The Court will grant the United States' request to conduct a hearing. This hearing will promote efficiency at trial.

probability, by the head injuries he sustained during the fight with Trevor Nez or when during the crime Williams was mortally injured; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.

Because the government does not challenge McGuire's qualifications as a medical expert, and in light of her considerable medical experience, the Court will permit McGuire to testify, in her opinion, to a reasonable medical probability, that Williams' death was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis.

I. MCGUIRE'S TESTIMONY REGARDING THE TIMING OF WILLIAMS' DEATH AND WHICH OF THE CO-DEFENDANTS CAUSED THE FATAL INJURIES USES FLAWED METHODOLOGY AND THE COURT WILL EXCLUDE THAT TESTIMONY UNDER DAUBERT.

The United States contends that McGuire's report contains conclusions that are beyond a medical doctor's expertise, especially one who is not qualified as a pathologist or is not experienced in the determination of cause of death. The United States argues that McGuire is not qualified to introduce opinions about the role Foghorn's actions, as distinguished from the other assailants' actions, played in causing the victim's death. Nor is she qualified to introduce opinions about the timing of Foghorn's actions as distinguished from the timing of the other assailants' actions, and how those actions caused Williams' death.

testimony.

During the Daubert hearing, the government stressed two main flaws in McGuire's methodology. First, McGuire bases her charts relating to lactic acidosis and body temperature, both of which depict a straight-line extrapolation, on insufficient data and unreliable methodology. Next, the Defendant fails to offer any evidence, in the form of scientific peer reviewed articles or other expert opinions, that verify the reliability of this methodology.

A. MCGUIRE BASES HER CONCLUSIONS ON INSUFFICIENT FACTS OR DATA.

In compiling the charts related to lactic acid and body temperature, McGuire makes numerous assumptions to generate the data points. Because it would be inhuman to subject a person to extreme circumstances and then measure how their body's physiology responds to such events, there is no available data on how lactic acid levels or body temperatures change in response to extreme conditions. McGuire, therefore, makes numerous key assumptions to create charts that project how Williams' body responded over the night of his assault. McGuire's charts have starting points based on assumptions of "average" lactic acid levels and body temperature. The ending points of the charts are Williams' body temperature and lactic acid levels taken by medical personal after discovering the body. McGuire assumes the average change per hour for both lactic acid levels and body temperature, and creates a straight line based on the assumed average hourly change.

For example, McGuire, in her testimony at the Daubert Motion hearing, explained how she

Q: My understanding of what you've said is that body temperature, based on all of the physical factors that Paul Williams had . . . right at the time of the fight, was his body temperature [] probably lower than normal?

A: Correct.

Q: Okay. Now, can you explain why you use a straight-line graph showing the decrease in body temperature rather than a graph that has some kinds of hills and valleys?

A: Well, part of it is based on my clinical experience. And it was unfortunately common in Shiprock, where people would be picked up along the road by emergency personnel, driving in, or a passerby seeing someone, calling an ambulance, and a critical factor was always how long were they out there. And it's -- as Ms. Burnett said, it would be cruel to subject a person to injury and put them out on the roadside and measure their temperature without assisting them, but in my experience and in lots of the emergency literature, that the measure of hypothermia is directly related to how long they've been exposed, what the ambient temperature is, what their degree of clothing is, and whether they're wet or not. And it is, you know, basically a time line.

The body, in my temperature graph -- as I said, I was generous. It was a flat line at 98 for -- into the first 30 minutes to an hour, and then I think -- and I think we can rely on reasonable experience of individuals, is that when you're outdoors, if we were outdoors in 45 degrees, we would have difficulty maintaining a 98.6. You've got to maintain a twofold temperature address, and people, they do try to compensate, but the body temperature does fall rapidly when a person is neurologically compromised, when they have the alcohol causing the vasodilation, and this decline may be even slower than normal. And, in fact, I think it's reasonable to assume that he dipped less than 86 or 87, because when, in my experience -- and I rode in many ambulances out at Shiprock, because we didn't have enough personnel -- but my experience is, at 5:00 in the morning, when the personnel are driving out there, they're running, they're warming the ambulance, they're running, they're not going to sit in 45-degree temperature. They've heated the ambulance to 80, 85. They run out, they pick up a person, they wrap them in blankets, and they put them in a heated ambulance.

So by the time he got to Shiprock, his -- which is 50 miles from -- about 50 miles

facility where they could actually measure his temperature.

Q: Okay.

A: So this is a -- If I were to redo this on my best clinical experience, I would have started his body temperature probably around 97, and I would have dropped it to the 83/84 range, with a rise between, you know, the lowest at about 5:00, 5:15 before he was picked up, and then a rise back to the 87 that was measured when he came in.

Q: Okay. And why did you not do that on the graph?

A: Without actual data points, I was trying to be very conservative and not, you know, push the envelope of plausibility.

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Because McGuire derives the starting data points, as well as all of the levels throughout the night, on unsupported and unverified data, such data is insufficient to support a reasonable or reliable conclusion.

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After creating the data, McGuire then makes various conclusions based on this data, including that (i) the death of Williams was caused by the head injuries he sustained during the fight with Trevor Nez; (ii) when during the crime Williams was mortally injured; and (ii) when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.

The Defendant, however, fails to offer evidence, in the form of peer-reviewed articles or

methods.

C. EVEN ASSUMING MCGUIRE'S DATA AND METHODOLOGY WERE RELIABLE, MCGUIRE UNREASONABLY APPLIED THE METHODOLOGY TO THE FACTS.

Even assuming, *arguendo*, that there was sufficient data and that the methodology was reliable, the Defendant also fails to establish that McGuire applies the methodology to the particular facts and data in a reasonable and reliable way. The Defendant offers no scientific literature, peer-reviewed or otherwise, that shows the temperature and lactic acid levels would change at such consistent rates indicated in McGuire's charts. The Defendant also does not present any evidence that particular levels of lactic acid, or certain body temperatures, are unequivocally fatal. The wide analytical gap between the data and the conclusions leads this Court to conclude that the expert's conclusions are unreliable, and, therefore, inadmissible. See Dodge v. Cotter Corp., 328 F.3d 1212, 1222 (10th Cir. 2003); General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997) ("A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.").

Because of the lack of scientific support for these conclusions, the Court is left with what constitutes McGuire's subjective belief and supported speculation as to the events leading up to Williams' death. The Court will exclude this testimony under Daubert.

D. DEFENDANT DID NOT OFFER EVIDENCE THAT OTHER DOCTORS USE THE METHODOLOGY MCGUIRE USED.

In her testimony, McGuire admits that she is unaware of any other medical professional that

scientific literature to support the reliability of such methodology, explains why McGuire is unable to offer a rate of error for her conclusions. See Transcript at 94:11-20. A rate of error is one of the factors considered in determining the reliability of expert testimony. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. at 2786; Truck Ins. Exchange v. MagneTek, Inc., 360 F.3d 1206, 1210 (10th Cir. 2004)(explaining that, under Daubert, one of the factors considered to determine the reliability of expert testimony is “whether the methodology used has standards controlling its use and known rate of error”). Because there is no evidence in the record of the methodology’s rate of error, and no evidence that other medical professionals use the same methodology, the Court concludes that the methodology, and the conclusions derived from it, are unreliable. The Court, therefore, will exclude this part of her testimony under Daubert.

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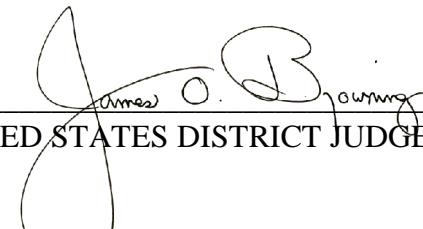
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IT IS ORDERED that the United States' Motion *in Limine* for Daubert Ruling on the Admissibility of Expert Testimony is granted in part and denied in part. McGuire may testify, in her opinion, to a reasonable medical probability, that Paul Williams' death was caused by the head injuries he sustained, compounded by environmental exposure, dehydration, hypothermia and profound lactic acidosis. McGuire may not testify that, in her expert opinion, the death of Williams was caused, to a reasonable medical probability, by the head injuries he sustained during the fight with Trevor Nez or when during the crime Williams was mortally injured. McGuire also may not testify that it is her opinion, to a reasonable medical certainty that, when Foghorn arrived, none of his activities contributed to the death of Williams and that nothing could have been done by Foghorn to prevent Williams' death.


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